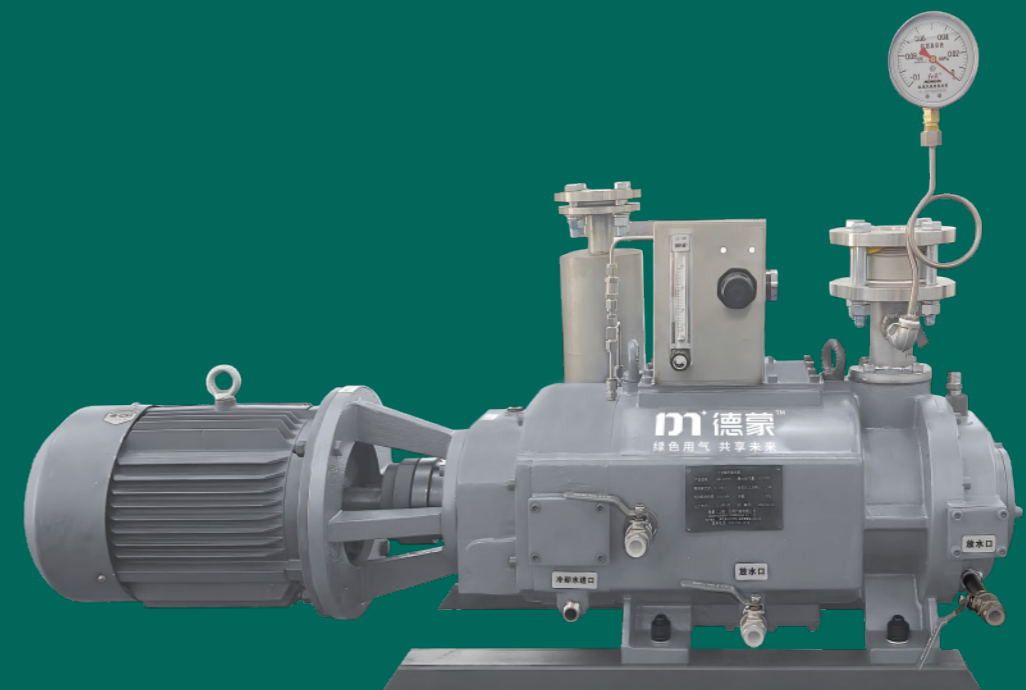


# Vacuum Pump Series Products



**Dream (Shanghai) Compressor Co.,Ltd.**

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Manufacturing Center No. 916,Chuangzhi Road,Xindai Town,Pinghu City,  
Jiaxing City,Zhejiang Province, China

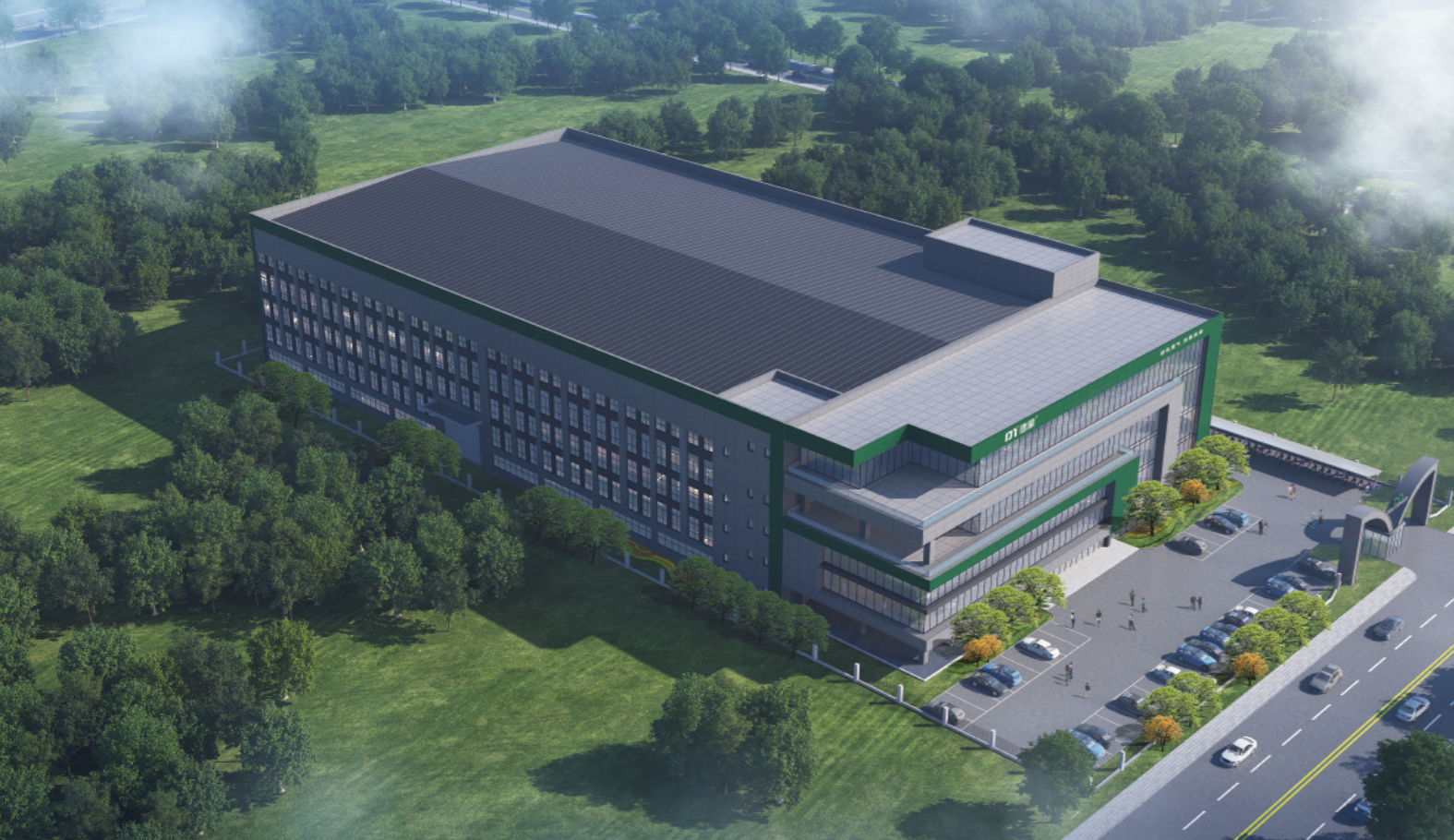
86-13671551445  
sales@dmcomp.com



www.dreamcompressor.com  
www.dmcomp.com

Dream(Shanghai) Compressor Co.,Ltd.





## ABOUT DREAM

 **45000** m<sup>2</sup>  
factory area

 **100+** 项  
Invention patents and honors

 **20+**  
Regional branches/subsidiaries

Dream (Shanghai) Compressor Co., Ltd. which established in Shanghai in 2011. It is a company specialized in designing, manufacturing and marketing of air compressors, A high-tech enterprise to offer system solutions. It has won honors such as Shanghai Brand Cultivation Demonstration Enterprise, special new enterprise, energy-saving equipment contribution enterprise, high-tech achievement transformation project, etc. The products are used widely in new energy, chemical industry & chemistry, Electronics, textiles, brewing mill, laser cutting, medicine & food and other fields. Since its establishment, Dream has R&D the application of air compressor system related technologies continuously, strictly abide by the ISO9001 quality management system, ISO14001 environmental management system, ISO45001 occupational health and safety management system standards, ensure that various processes are closely synchronized with international standards. We set up a professional R & D center to meet the demand and application conditions of different application clients worldwide. Based on concepts of stable, energy-saving, clean, efficiency, simple operation & maintenance, DREAM insists on developing based on market demand and innovation. The company invests 10%-15% of its profits every year into R&D and the upgrading & optimization of products. Innovation is main driver for DREAM grow up. As manufacturer supplier of Air compressor system solutions, Our service cover client requirement analysis, site investigation, technical solution design, and project cost analysis, non-standard solution customization, solution demonstration and promotion. we provide exclusive compressed gas solutions based on project needs.

After development for 14+ years, Dream has always adhered to the enterprise spirit of "One heart One Dream, striving for excellence", constantly innovating and pursuing excellence. Dream people continue to explore and innovate to meet customer needs and provide users with better products and service. Based in China, Dream's products has exported to worldwide countries successfully, mainly market as South Asia, South East Asia, Europe, Africa, South America, North America, and CIS countries, footprints all over the world. Its excellent product performance and efficient service concept continue to create value for users.

Dream will be always your trust partner. We believe that you will experience our high-quality products and professional services, by working with us. Welcome to pursue dream and create better future with DREAM together!

## DREAM CULTURE



### Vision

To become the industry's most competitive vacuum technology and gas compressor solutions provider



### Mission

Give users more worry free Sustainably save energy and gas



### Value

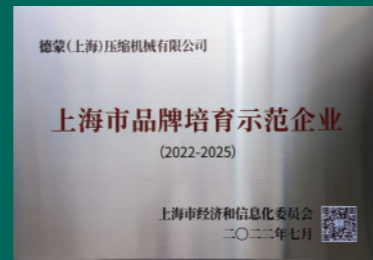
Concentric shared dream professional focused co-created shared



# DREAM

## Enterprise honor

- High-tech enterprise
- Specialized in special new enterprises
- Energy-saving technology and equipment contributing enterprises
- Shanghai brand cultivation model enterprise
- CE Certificates
- EMC Certificates
- TUV Rheinland Class 0 Oil Free Certificates
- Germany TUV product safety certification
- GCCA product quality and safety certification
- ISO 9001,14001,45001



**20+**  
City subsidiary

**34** Provincial sales  
service network

Adhering to the business philosophy of "market-oriented, customer-centric, technical support and service guarantee", Dream is committed to providing customers with high quality products and industry-leading services. With Shanghai as the center and 20 service outlets nationwide as the auxiliary, Dream covers 34 provinces and autonomous regions of China's sales and service network, dedicated to provide customers with better service.

## Global service

Dream is committed to providing quality products and services on a global scale, and has conducted overseas operations in many countries and regions, including Southeast Asia, Europe, and the Americas, and has established strong partnerships in overseas markets. Our overseas agents have rich experience in cross-cultural communication and international vision, and are able to better understand and meet the needs of local customers and markets. In the future, we will continue to strengthen the development of overseas business, expand more overseas markets, and let China intelligent manufacturing shine on the international stage.



## Dream Intelligent Manufacturing Six core competencies

### Product

- Oil-free series vacuum pumps
- Energy-saving screw vacuum pumps
- Mobile vacuum pump
- Compressed air purification equipment



### Technology

- Technologies Vacuum System Development
- Automation Digitization Technology
- Specialized application technology

### Solution

- Vacuum Technology Energy Saving Expansion
- Digital station house
- Intelligent control
- Whole station energy saving

### Engineering

- Vacuum station retrofit capability
- Project management capability
- Engineering design capability
- Detail implementation ability

### Guarantee

- Product quality assurance
- Production cycle support
- Product after-sales support
- System engineering capability assurance
- Capacity supporting measures

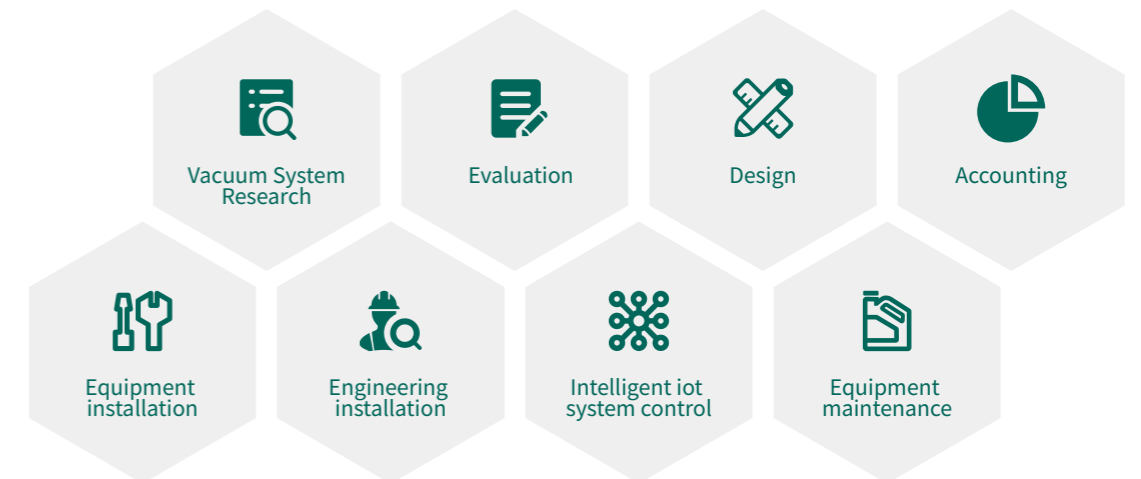
### Service

- Full life cycle service
- Performance pledge
- 19 national service outlets
- Global delivery

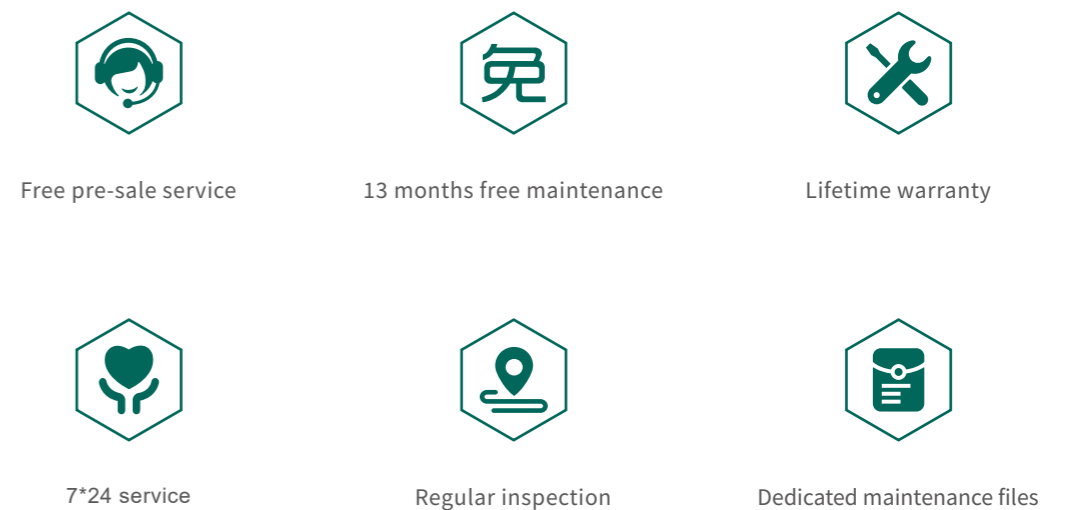
## | Full process cycle and service

We design or upgrade vacuum stations for our customers, providing full process cycle services covering vacuum system research, evaluation, design, accounting, equipment installation, engineering installation, intelligent IOT system control, and equipment maintenance.

## | Service process



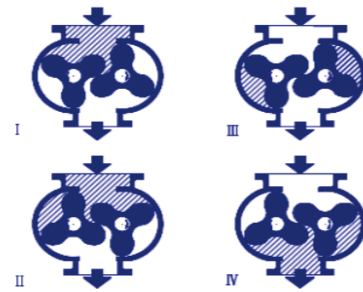
## | Performance pledge





## DM Series Roots vacuum pump

The Roots vacuum pump is a rotary positive displacement vacuum pump. The two three-lobe rotors keep a certain clearance with the pump chamber, and the two rotors mesh with each other and keep a certain clearance by a pair of synchronous counter-rotating high-precision gears. The right figure shows the structure of the pump, from Figure I to IV for the rotor. Rotating in the pump chamber and complete a suction and discharge process. The Roots vacuum pump with a three-lobe rotor has obvious technical advantages over the traditional Roots vacuum pump with a two-lobe rotor in terms of pumping efficiency, maximum permissible differential pressure, temperature rise, vibration, noise and other main performance indexes.



Fast start-up  
low power consumption



High compression ratio



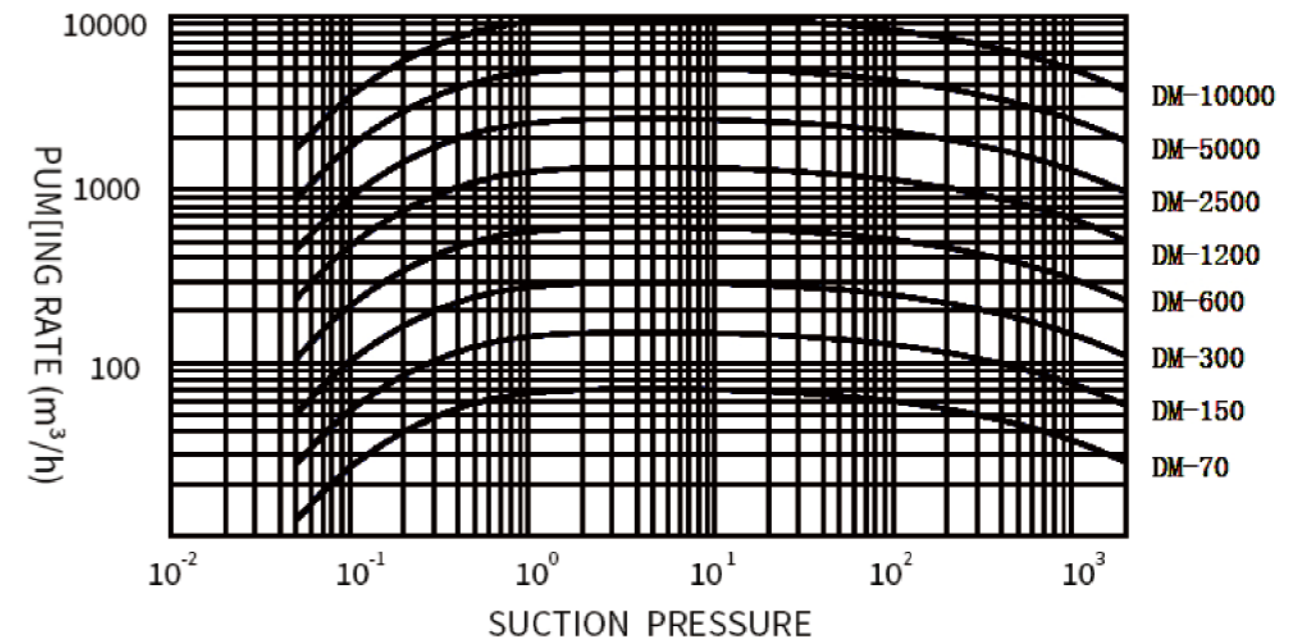
Strong geometrical  
symmetry of the rotor



Clean and oil-free  
pump chamber

DM series water-cooled Roots parameter table

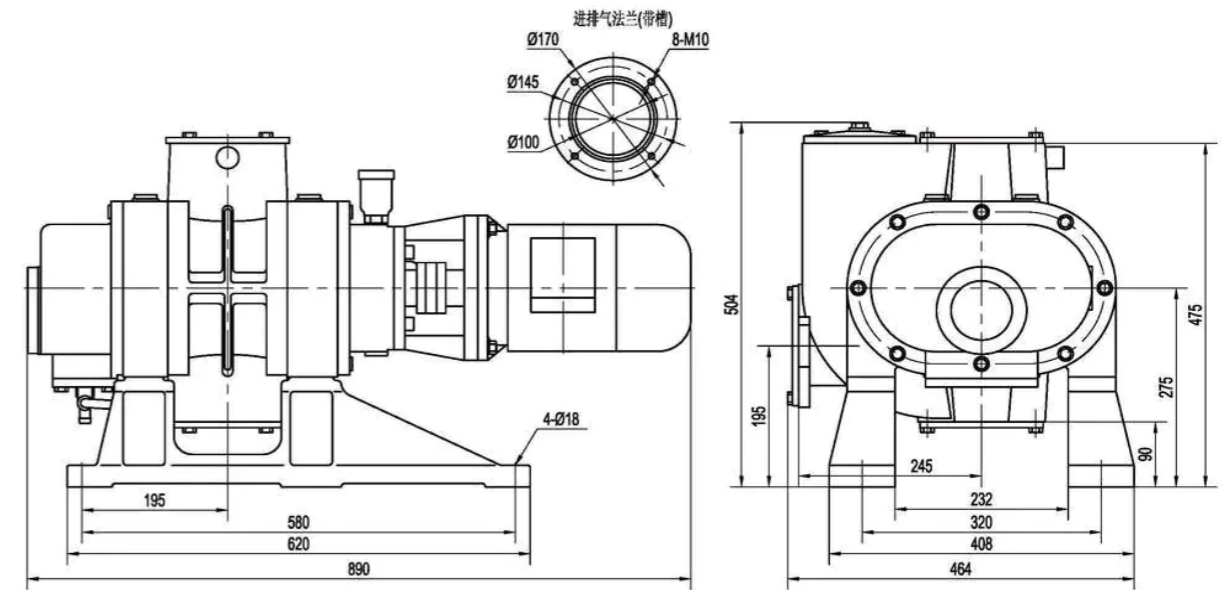
Model NO.	Pumping Speed L/s	Extreme Pressure Pa	Maximum Allowable pressure difference	Power Kw	Rotation Speed rpm	Air Input Pipe Diameter mm	Air Output Pipe Diameter mm	Weight Kg
DM-70	70	≤ 0.5	≥ 1.2*10 <sup>4</sup>	1.5	1450	100	80	165
DM-150	150	≤ 0.5	≥ 1*10 <sup>4</sup>	3	2900	100	80	165
DM-300	300	≤ 0.5	≥ 8*10 <sup>4</sup>	4	2900	160	100	275
DM-600	600	≤ 0.5	≥ 6*10 <sup>4</sup>	5.5	2900	200	160	420
DM-1200	1200	≤ 0.05	≥ 5*10 <sup>4</sup>	11	2900	250	200	980
DM-2500	2500	≤ 0.05	≥ 4*10 <sup>4</sup>	18.5	2900	320	250	1800
DM-5000	5000	≤ 0.05	≥ 3*10 <sup>4</sup>	37	1450	300	300	3580



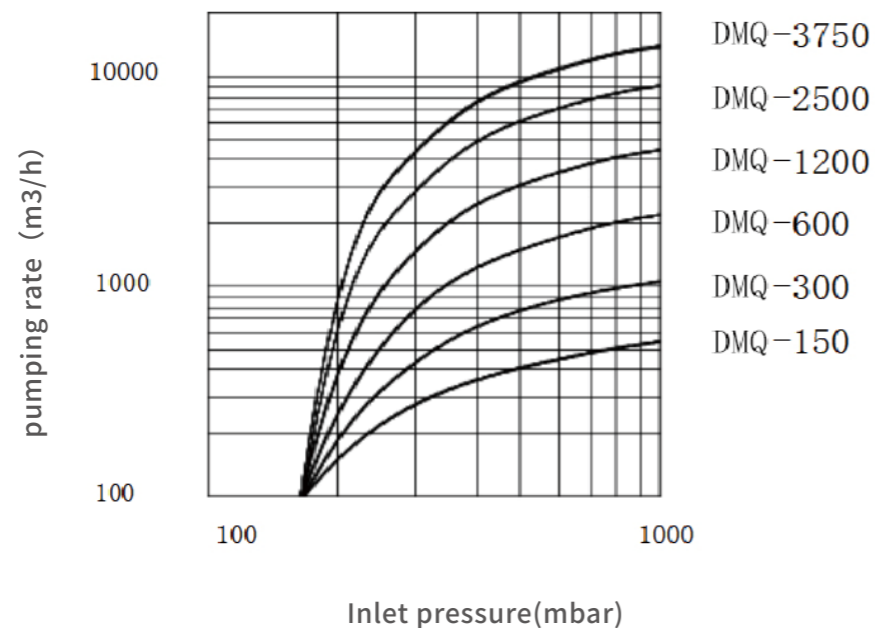
DMQ series air-cooled Roots parameter table

Model NO.	Pumping Speed L/s	Extreme Pressure Pa	Power Kw	Rotation Speed rpm	Air Input Pipe Diameter mm	Air Output Pipe Diameter mm	Maximum water consumption L/h	Pump head weight Kg
DMQ-150	150	15000	3~18.5	2900	80	80	3500	350
DMQ-300	300	15000	5.5 ~ 37	2900	125	125	6000	350
DMQ-600	600	15000	7.5-75	1460	250	200	9000	650
DMQ-1200	1200	15000	11~132	1470	300	250	15000	1200
DMQ-2500	2500	15000	22~280	980	350	350	28000	2300
DMQ-3750	3750	15000	30~400	1470	350	350	35000	2300

## Dimension Picture



Air-cooled Roots vacuum pump performance curves



## Advantage

1. The applicable pressure range of Roots pump is large, and a large pumping speed can be obtained within this range. If gas is suddenly released from the system, the Roots pump can release the mixed gas at a faster pumping speed. This feature makes the Roots pump superior to diffusion pumps and oil-sealed mechanical pumps. In the Roots pump unit, it can be used as a booster pump in the air extraction system.
2. It is equipped with a bypass relief valve that can be started under atmospheric pressure, shortening the pumping time; there is a gap between the rotor and the rotor, and between the rotor and the pump cavity wall. There is no friction in the moving parts in the pump and no lubrication is required. The pump cavity No oil inside.
3. The rotor has symmetrical shape, good dynamic balance performance, smooth movement, high-precision gear transmission, and low operating noise.
4. The structure is compact and occupies a small area. The horizontal structure is usually selected. The gas in the pump chamber flows vertically, which is beneficial to the removal of dust or condensate being pumped.
5. Selecting the appropriate rotor profile and fine grinding can achieve higher volumetric efficiency.
6. Low operation and maintenance cost. It starts quickly, consumes less power, has low operation and maintenance costs, has high pumping speed and high.

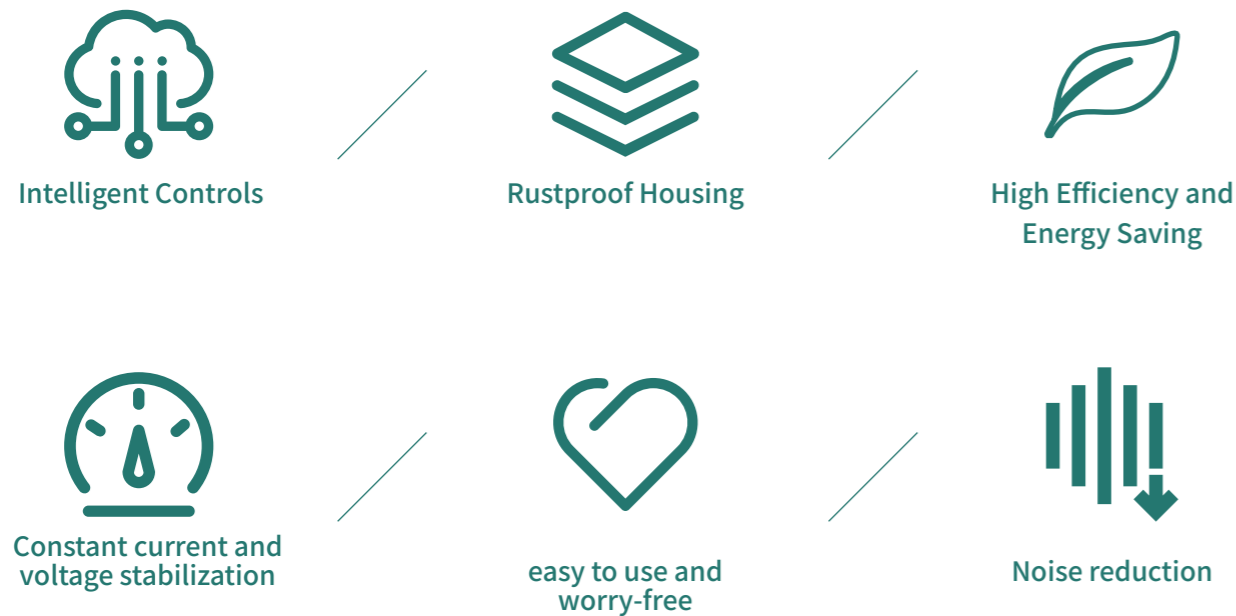
## Range of application

Fast start-up, low power consumption, low operation and protection costs, high pumping speed, high efficiency, insensitive to the large amount of water vapour and dust contained in the pumped gas. In 1 ~ 100 pressure range has a large pumping rate, can quickly eliminate the sudden release of gas. This pressure scale is exactly in the oil-sealed mechanical vacuum pumps and dispersing pumps between. Therefore, it is often connected in series between the dispersing pump and the oil-sealed mechanical vacuum pump, which is used to improve the pressure limit and pumping volume. It is also called mechanical booster pump.



## Product Application Fields

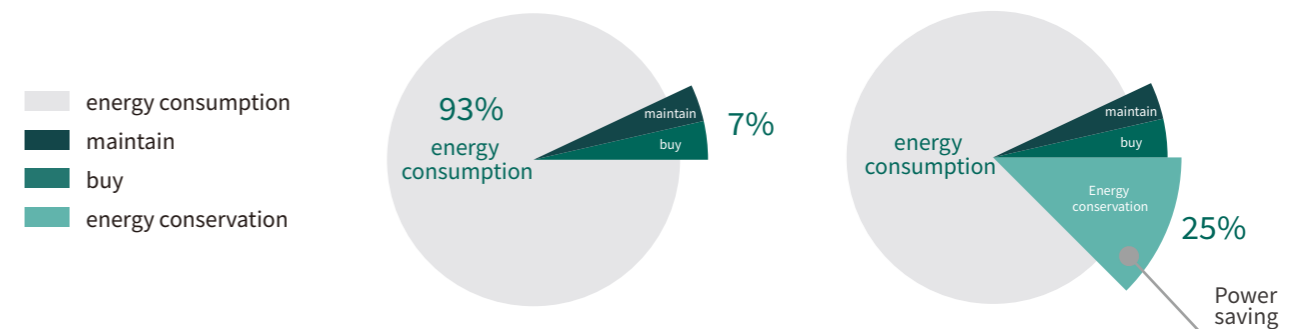
The application fields of vacuum system are very wide, and have penetrated into aerospace, vehicles, civil engineering, machinery, packaging, environmental protection, medicine and medical equipment, petroleum, chemical industry, food, optics, electricity, electronics, atomic energy, semiconductor, cryogenic, professional machinery, textile, paper, civil industry and military industry. Environmental protection, medicine and medical equipment, petroleum, chemical, food, optical, electrical, electronic, atomic energy, semiconductor, cryogenic, professional machinery, textile, paper, civil industry and military industry. With years of in-depth research in the vacuum field and unique insights into the application of vacuum processes, the team of Dermont can customize the best vacuum system solutions according to the customer's process.



## Energy saving and cost reduction

When purchasing vacuum pumps, the traditional cost (that is, purchase cost + maintenance cost) accounts for only 7% of the total cost, while energy consumption accounts for 93%.

— Taking 11KW as an example



Water ring vacuum pump



Dream vacuum pump



Dream 11KW vacuum pump  
It saves about 25% of electricity a year

# DREAM

## Intelligent control technology

cloud intelligent control three functions and value



### Digital Station

Intelligent control: 10-30% reduction in O&M costs

- 3D virtual vacuum pump
- Data dynamic monitoring
- Workshop diagnostic reports
- Failure online warning
- Maintenance interval reminder



### Intelligent control

Intelligent machine adjustment: reduce manual labor time  $\geq 50\%$ .

- Vacuum pump automatic control
- AI algorithm autonomous parameterization
- Dynamic decision making for equipment prioritization
- Intelligent control of ancillary equipment



### Whole station energy saving

save the power consumption of 5-30%

- edge computing technology
- narrow band constant voltage technology
- multi-parameter and multi-constraint control algorithm
- big data visualization technology

## GREEN ENERGY SHARED DREAM



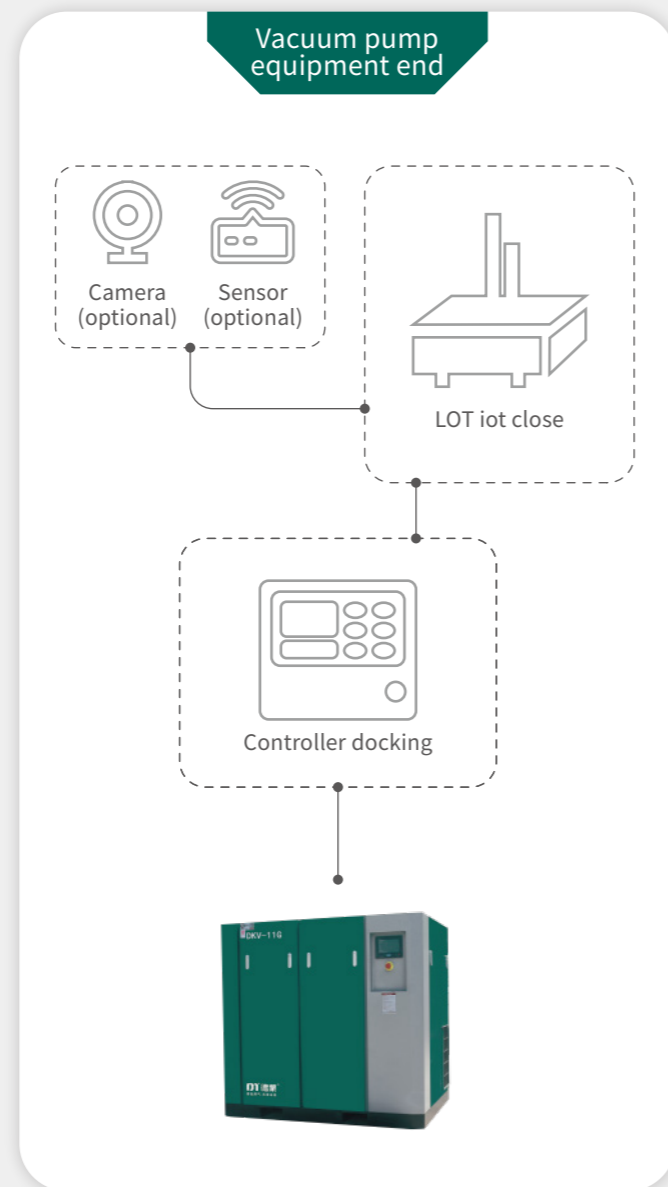
Computer remote monitoring



Dream vacuum pump  
wifi connection control  
remote monitoring



Mobile phone  
remote monitoring



### Digital station house

Station monitoring + control (computer side)  
Vacuum pump, fan, electric meter, etc

### Intelligent monitoring technology

Based on the "Internet of Things" intelligent control technology, the product has the ability to transport parameters through cloud technology, and our users can achieve it through computers or mobile phone apps.

